

## Petitioners' 1/9/14 Response to EPA's Request for Additional Information



## Spaulding, William

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**From:** Allen Wehrmann <[REDACTED]>  
**Sent:** Thursday, January 09, 2014 1:51 PM  
**To:** Spaulding, William  
**Cc:** Dan Haddock; Dennis Schmidt  
**Subject:** Re: Stream Connection Verification and effects on possible Mahomet boundary alterations  
**Attachments:** Petition boundary changes.pptx; map5.tif

Bill,

I am attaching a PowerPoint slide containing possible Petition boundary alterations as you recommended in your e-mail of Jan 2. I am also attaching ISWS low-flow map for the Sangamon River region (map5.tif). Before we go any farther with GIS modifications, I would like to discuss this with you.

The Sangamon River above Fisher in northwest Champaign County and extending into southwestern Ford County around Gibson City (shown in light red and labelled as Drummer Creek on the attached pptx file). It seems reasonable to possibly extend the Petition boundary to include the Drummer Creek watershed (see ISWS low flow map, map5.tif). In this area, there is a loss in flow from 0.45 cfs to 0.13 cfs, suggesting some movement of surface water into shallow aquifers. While there is no specific evidence that this water reaches the Mahomet Aquifer, a conservative approach could reasonably include it for protection. However, it does not seem necessary to include that portion of the upper watershed that extends northwestward into McLean County around Saybrook. This portion of the watershed has a zero low flow and would not be expected to contribute water to the Mahomet.

The Sangamon River below Monticello and extending through Allerton Park (shown in light blue). This portion of the watershed is already within the Petition boundary. The adjacent watershed that slightly overlaps the Petition boundary encompasses surface flow that flows off the aquifer and into the Kaskaskia River. In addition, portions of the Sangamon R. watershed below Allerton Park flow toward Decatur and also off the aquifer boundary. It does not seem reasonable to add any area here.

Sugar Creek in McLean County around Normal/Bloomington. Like the upper Sangamon, the ISWS low flow map shows a loss of flow below Normal/Bloomington all the way out of McLean County and into Logan County. Here again, there is no specific evidence that this water reaches the Mahomet Aquifer, but a conservative approach could reasonably include this watershed for protection purposes.

The same does not hold true for the adjacent Kickapoo Creek subwatershed. Kempton and Visocky (1992) mention possible connection of the Henry Formation sand and gravels to the upper Glasford Formation, therefore enhancing potential for groundwater development from these shallower deposits. There is no mention of connection to the deeper Mahomet. The ISWS low flow map shows no loss of flow and very small low flow above Heyworth. FYI, Heyworth is within the Petition boundary as shown on the pptx slide. However, if USEPA feels that the Kickapoo Creek watershed should be included, we are willing to make the change.

Alternatively, given that all those subwatersheds along the northern boundary of the aquifer provide surface flow onto the Mahomet (outlined with the black line), one could add ALL of them, rather than one or two. From our perspective, there is as much evidence that these watersheds contribute recharge water as there is the ones you mention.

Would it be possible to discuss this on the phone? I'd be happy to talk to you tomorrow if you have the time. I also want to ask you about the potential for additional questions regarding the Petition and scheduling of a public meeting(s). I know Tom Poy contacted the City of Champaign representative back in the fall prior to the government shutdown with the thinking that a public meeting would occur before Christmas. We are wondering what the timing of that looks like now.

Talk to you tomorrow, I hope. Let me know a time. My number is [REDACTED]

Al

On Thu, Jan 2, 2014 at 6:26 AM, Spaulding, William <[spaulding.william@epa.gov](mailto:spaulding.william@epa.gov)> wrote:

Al:

Happy New Year!

It appears that based on review of what has already been submitted and a report called "A Plan to Improve the Planning and Management of Water Supplies in East-Central Illinois", that certain stream segments with headwaters outside of the Mahomet Aquifer boundary would appear to require some expansion of that boundary to include those watershed areas. The Plan mentions four key segments, some of which you mention in the Petition:

The Middle Fork of the Vermilion River in northeastern Champaign County and eastern Ford County. (This segment watershed appears to be entirely within the Mahomet Aquifer)

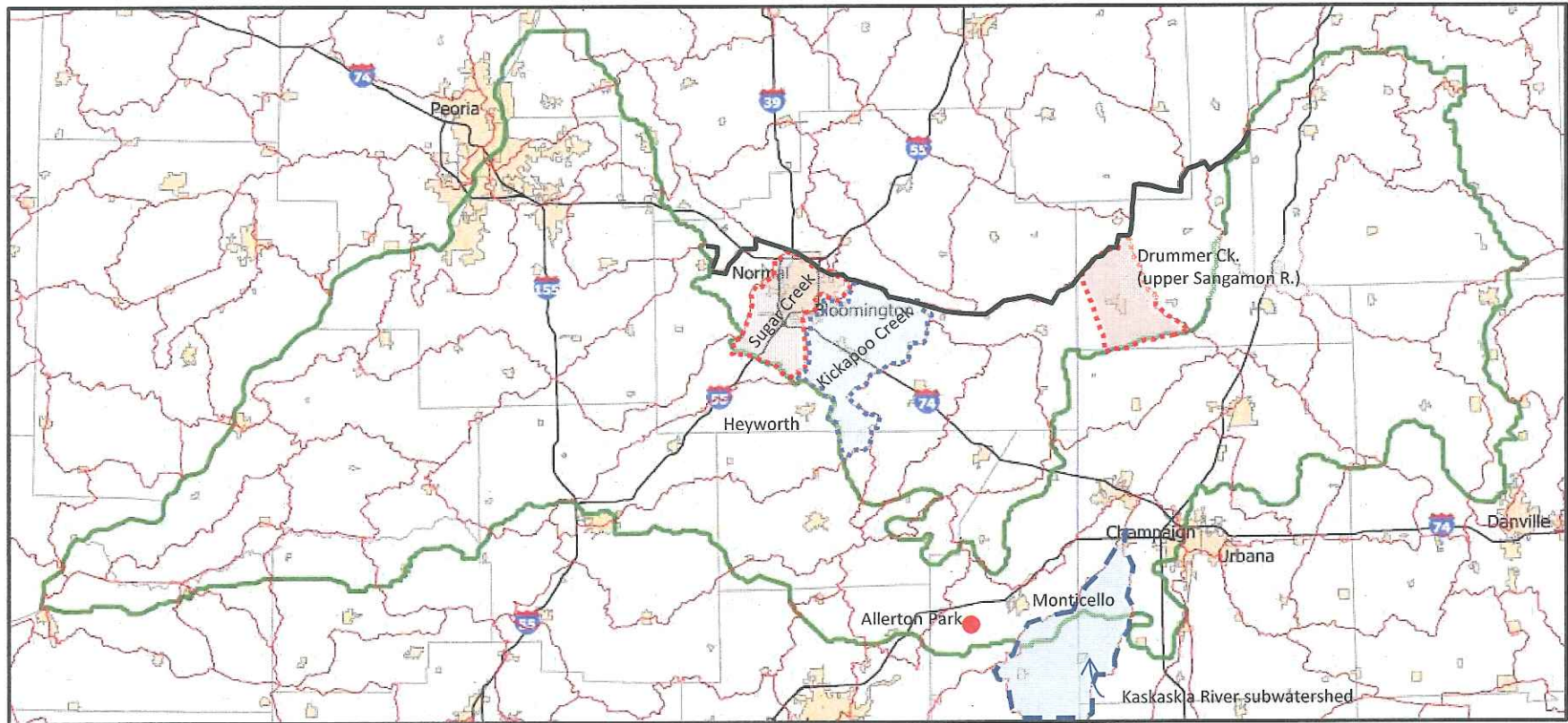
The Sangamon River between Mahomet and Fisher and the Sangamon River south of Monticello through Allerton Park (These segments have watershed areas which extend outside the Mahomet Aquifer boundary. The watershed area upstream of Fisher, which includes Gibson City and south central Ford County should be added)

The Sugar Creek near McLean (The watershed upstream of McLean should be added. This would include Timber Creek, which appears to drain the area southwest of Bloomington and Sugar Creek, which appears to drain most of Normal).

There is one connection point that also might need to be considered. Kempton and Visocky (1992) p.19 also describes the Kickapoo Creek near Heyworth as what seems to be another recharge spot. If that is true then it would appear that the upstream watershed area of that creek would need to be added to the Mahomet SSA area as well.

Bill Spaulding

## Potential Mahomet Aquifer SSA Petition Boundary Modifications





# MAP 5 SANGAMON REGION

SANGAMON RIVER WITH SALT CREEK AND OTHER TRIBUTARIES

APRIL 2002 REVISION

## MAP 5 - SANGAMON REGION

### EXPLANATION

STREAMS HAVING ZERO 7-DAY 10-YEAR LOW FLOW

STREAMS HAVING NON-ZERO 7-DAY 10-YEAR LOW FLOW

LOCATION OF A WASTE WATER PLANT OUTFALL AND THE 2000 EFFLUENT IN MG DURING A 7-DAY LOW FLOW PERIOD

7-DAY 10-YEAR LOW FLOW (INDIVIDUAL PLUS 20% EFFLUENT DURING LOW FLOW PERIOD) IN MG

LOCATION OF WASTE WATER OUTFALL OF AN INDUSTRY AND 2000 EFFLUENT IN MG DURING A 7-DAY LOW FLOW PERIOD

LOCATION AND IDENTIFICATION NUMBER OF U.S. GEOLOGICAL SURVEY STREAM GAGING STATION

ESTIMATES FOR THE /ER CAN BE FOUND BORDER RIVERS

